

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 September 2004 (30.09.2004)

PCT

(10) International Publication Number
WO 2004/082898 A2

(51) International Patent Classification⁷: **B25J**

(21) International Application Number:
PCT/SE2004/001040

(22) International Filing Date: 24 June 2004 (24.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03076990.5 26 June 2003 (26.06.2003) EP

(71) Applicant (for all designated States except US): **ABB AB**
[SE/SE]; S-721 83 Västerås (SE).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **KROGEDAL, Arnulf**
[NO/NO]; Jaerv. 295, N-4322 sandnes (NO).

(74) Agent: **ABB AB**; Legal & Compliance/Intellectual Property, Forskargränd 8, S-721 78 Västerås (SE).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): **AE, AG, AL, AM,**

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

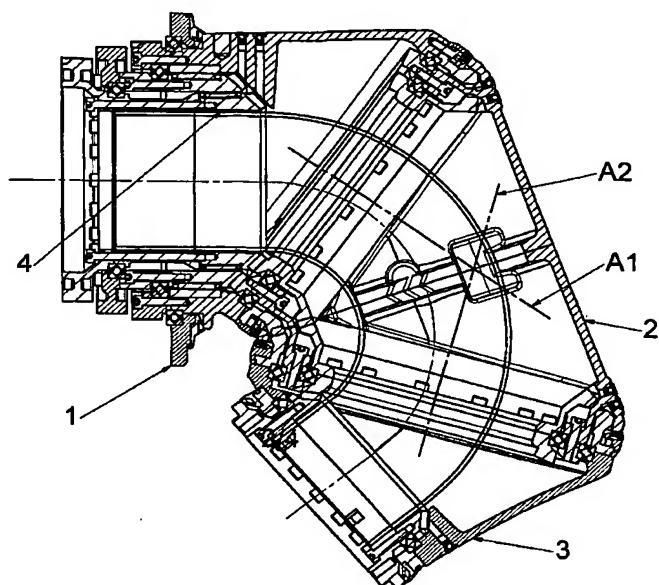
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- upon request of the applicant, before the expiration of the time limit referred to in Article 21(2)(a)
- without international search report and to be republished upon receipt of that report
- without classification; title and abstract not checked by the International Searching Authority

[Continued on next page]

(54) Title: ROBOT MEMBER



WO 2004/082898 A2

(57) Abstract: A robot wrist with a plurality of rotatable parts arranged in series with each other arranged to be mounted on a robot arm or automation machine to enable rotary movement of the first wrist part about a first axis, and a second wrist part 2 journalled in the first wrist part. Each wrist part 1, 2, may be arranged with one or more gear members to drive a rotary movement and rotate any wrist part relative to another wrist part, and at least one gear member of one engaging pair is a concave bevel gear arranged with negative bevel angle (Cn) to the plane of rotation (P) at the engaging face. In another embodiment the robot wrist has three wrist parts 1, 2, 3. The robot wrist may also comprise an inner protection hose.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.